

REMARKS

This application pertains to a method of melting frozen, water-containing products, such as protein-containing products, using a mixer having horizontal internals.

Claims 1-5, 7 and 9 are pending.

Claim 2 stands rejected under 35 U.S.C. 112, second paragraph, because a trademark was used to identify a particular product. This rejection has been obviated by cancelling the trademark, and the rejection should now be withdrawn.

Claims 1, 4, 5, 7 and 8 stand rejected under 35 U.S.C. 102(b) as anticipated by Hiller US 1,735,393.

Applicants' claims, as now amended, are directed to the thawing of pieces of ice which contain water and protein-containing products. This is done by heating the pieces of ice to a temperature which is less than 10°C above the melting point of the ice.

The Hiller reference, by contrast, is directed to a rendering process wherein *animal fats are beaten* and heated to break-down the cellular structure (Page 2, lines 75-80) and reduce it to a liquid stage. Hiller's apparatus and process are characterized by rapid beating and scraping or wiping action (page 3, lines 28-29). The temperature of the material being treated ranges from 110 to 212 °F (page 3, line 49). The apparatus is useful for e.g. rendering whale parts and reducing them to meal rapidly and

in a continuous manner (page 3, lines 87-89). The process and apparatus may be used to produce dried ground or pulverized blood (page 3, lines 124- page 4, line 5) and heats the blood to as much as 212°F (page 4, line 4). The Hiller process is concerned with e.g. reducing blood and foodstuffs to a dried powdered form (page 4, line 19). The shell of Hiller's drying apparatus can be at a much higher temperature than 212°F (page 4, lines 80 - 84).

The biological products recovered by Applicants' process and apparatus are mechanically and thermally unstable, and Applicants' therefore avoid mechanical and thermal stress upon such products (page 2, lines 15-18).

The Hiller reference clearly pertains to a different process and different products. Hiller uses extreme temperatures at the walls of his apparatus, and uses beaters and scrapers (page 2, lines 28-29), all of which are avoided by Applicants' process.

Applicants' process and apparatus are therefore completely different than those disclosed by Hiller, and no person reading Hiller could ever be led to Applicants' apparatus and process.

The rejection of claims 1, 4, 5, 7 and 8 under 35 U.S.C. 102(b) as anticipated by Hiller US 1,735,393 should therefore now be withdrawn.

Claims 1-3, 5, 7 and 8 stand rejected under 35 U.S.C. 102(b) as anticipated by Mange et al. US 4,846,054.

Mange, like Hiller, is directed towards extracting fat from animal matter. Further, Mange also subjects the products being processed to harsh conditions that would never be tolerated by the mechanically and thermally unstable products being processed by Applicants' apparatus. Mange, for example, subjects the products being processed to conveyance by two overlapping conveyor screws (col. 2, lines 3-8), and while being conveyed are subjected to combined kneading and shearing effects capable of causing the protein tissue to burst open.

Mange also heats the product to a temperature in the range of 90°C and reheats it to 105°C (col. 2, lines 28-31). This is certainly much more harsh than the upper limit of 10°C above the melting point of ice used in Applicants' process.

The biological products recovered by Applicants' process and apparatus are mechanically and thermally unstable, and therefore mechanical and thermal stress, such as applied by the Mange apparatus and process, must be avoided and is avoided by Applicants' apparatus and process. The Mange apparatus and process is therefore different than and non-suggestive of Applicants', and the rejection of claims 1-3, 5, 7 and 8 under 35 U.S.C. 102(b) as anticipated by Mange et al. US 4,846,054 should now be withdrawn.

Finally, claims 1 and 4-9 stand rejected under 35 U.S.C.102(b) as anticipated by US 2,924,952 to Swenson et al.

The Swenson apparatus and process are concerned with producing a frozen product, and not with thawing of ice to recover products frozen within the ice. Although Swenson provided an electrical heater on port 147, all this does is prevent the port from becoming clogged with frozen product (col. 5, lines 40-50). Absolutely nothing in this reference has anything to do with the recovery of e.g. biological products from pieces of ice within which the biological products are encased. Accordingly, Swenson's apparatus and process are completely different than and non-suggestive of Applicants, and the rejection of claims 1 and 4-9 under 35 U.S.C.102(b) as anticipated by US 2,924,952 to Swenson et al. should now be withdrawn.

In view of the present amendments and remarks it is believed that claims 1-9 are now in condition for allowance. Reconsideration of said claims by the Examiner is respectfully requested and the allowance thereof is courteously solicited. Should the Examiner not deem the present amendment and remarks to place the instant claims in condition for allowance, it is respectfully requested that this Amendment Under Rule 116 be entered for the purpose of placing the prosecution record in better condition for appeal.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If any extension of time for this response is required, Applicant requests that this be considered a petition therefor. Please charge the required petition fee to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fee or credit any excess to Deposit Account
No. 14-1263.

Respectfully submitted,
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